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Central Intelligence Agency



Washington, D.C. 20505

30 September 1988

C/ODI Registry
03294X/88

Mr. Timothy C. Finton
Office of Industrialized Country Policy
Department of State
Washington, D.C. 20520

Dear Mr. Finton:

Mr. Borg's letter of 9 September 1988 to Judge Webster regarding studies in the telecommunications policy area has been referred to me for response. I am pleased to assist you again this year in your endeavor to coordinate foreign affairs research projects on this topic.

I have surveyed our offices' involvement in research related to international telecommunications and have found that we undertook one internal study this year; we funded no external contracts in this field in 1988. The assessment makes use of a 1987 contract study that we reported to you last year--

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Mr. Timothy C. Finton

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I will be happy to assist you further in developing your resource base. I have asked [] of this Staff

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[] to be available to help you in any way possible. []

Sincerely,

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[]
Acting Chief
Management, Planning, and Services Staff

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Mr. Timothy C. Finton

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ODDI/MPSS/RPMC (30 Sept 88)

Distribution:

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United States Department of State

*Bureau of
International Communications
and Information Policy*

Washington, D.C. 20520

September 9, 1988

Dear Mr. Webster:

For the past three years with widespread inter-agency assistance, we have developed a compilation of a listing of all U.S. Government studies which have relevance to international telecommunications policy matters. This effort has shown us that as we are working in the U.S. Government to develop a telecommunications resource base, sharing the research can ensure optimal use in the policy-making process. With the continued emphasis by the Administration on fiscal efficiency, it is all the more important that we continue our efforts again this year to share and coordinate our research efforts.

Therefore, I would like to enlist your personal support in again encouraging your office or agency to provide appropriate information on studies it has undertaken for the year 1988. Your information should include both studies performed within your office or agency and those performed on contract for you. The submission should include the following information: 1) title of the study, 2) short synopsis, 3) contractee, 4) status - whether proposed, in process, or completed, 5) date of completion (actual or proposed), 6) cost, and 7) contact person for obtaining copies and/or further information.

Please send responses by October 21, 1988 to Timothy C. Finton, Office of Industrialized Country Policy, Room 6317. Mr. Finton can be reached at 647-5230. In an attempt this year to speed compilation, please have your staff member contact Mr. Finton to determine if the information can be transferred to our computers either electronically or by compatible diskettes (a sample format is enclosed). As in the past, we will, in turn, share this compendium with all the contributing agencies. In the instances of classified reports, we will treat them as sensitive. Thank you for your help.

Sincerely,

A handwritten signature in dark ink that reads "Parker W. Borg".

Parker W. Borg
Acting U.S. Coordinator
and Director

Enclosure: a/s

Mr. William Webster
Director of Central Intelligence
Central Intelligence Agency
Washington, D. C. 20505

Attachment

Sample Format

Title: "Europe 1992: New Challenges and Opportunities"

Synopsis: The purpose of the study is to provide an in-depth analysis of the proposals for harmonization of the European market by 1992. This transformation planned for the European economies is especially important for the communications and information sectors. The study will present insight into the emergence of a broadened trade policy for a united Europe that builds on and expands traditional U.S.-EC trade negotiations.

Contractee: The Atlantic Council of the United States

Status: Proposed.

Date of Completion: Interim report, January 1989.
Final report, Autumn 1989.

Cost: \$10,000 (State Dept. contribution to total budget of \$110,700)

Contact: Lucy H. Richards, Director,
Office of Industrialized Country Policy,
Bureau of International Communications &
Information Policy, U.S. Department of State
647-5230

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Executive Secretary

15 Sept '88


Date

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Remarks

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 Executive Secretary

1 Feb '88

Date

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United States Department of State

Bureau of
International Communications
and Information Policy

Washington, D.C. 20520

Executive Registry

88-0256X

Dear Mr. Webster:

Attached is the annual edition of the "Survey of U.S. Government Contracts for Telecommunications Studies" compiled by the Bureau of International Communications and Information Policy.

It is evident that the diverse studies funded by government agencies are becoming increasingly useful in the policy-making process. It is, also, equally clear that with shrinking government budgets the need for even more coordination and cross-utilization is warranted. Your agency's support and cooperation is an important factor in maximizing the effectiveness of research dollars. While the discrete and unique research requirements of each agency will continue, sharing the research can ensure optimal use in the policy-making process. To those U.S. Government agencies that were able to provide us information, we thank you for your continued support of this important project.

Your suggestions on improvements or refinements of this process are appreciated.

Sincerely,

Diana Lady Dougan

Diana Lady Dougan
U.S. Coordinator and Director

Honorable William Webster
Director
Central Intelligence Agency
Washington, D.C. 20505

C-204-1N

Survey of U.S. Government Contracts
for
Telecommunications Studies

Compiled by

Bureau of International
Communications & Information Policy
U.S. Department of State

January 11, 1988

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I. FORM LETTER SENT TO U.S. GOVERNMENT AGENCIES

Dear :

For the past two years, you have participated with us in helping to develop a compilation of a listing of all U.S. Government contracts for studies which have relevance to international telecommunications policy matters. This effort has shown us that as we are working in the U.S. Government to develop a telecommunications resource base, sharing the research can ensure optimal use in the policy-making process. With the continued emphasis by the Administration on fiscal efficiency, it is all the more important that we continue our efforts again this year to share and coordinate our research efforts.

Therefore, I would like to enlist your personal support in again encouraging your office or agency to provide appropriate information on studies it has undertaken for the year 1987. The submission should include the following information: 1) title of the study, 2) short synopsis, 3) contractee, 4) status - whether proposed, in process, or completed, 5) date of completion (actual or proposed), 6) cost, and 7) contact person for obtaining copies and/or further information.

We would welcome any suggestion on improvements or refinements of this process. In this regard, we also would appreciate your designating an officer in your agency who could participate in some on-going discussions to further improve inter-agency coordination and exchange of research and study efforts.

Send responses by October 15, 1987 to Timothy C. Finton, Office of Planning and Analysis, Room 6317. Mr. Finton can be reached at 653-6102. As in the past, we will, in turn, share this compendium with all the contributing agencies. In the instances of classified reports, we will treat accordingly.

Thank you for your help.

Sincerely,

Diana Lady Dougan
U.S. Coordinator and Director

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II. U.S. GOVERNMENT AGENCIES SURVEYED

Morton I. Abramowitz
Director
Bureau of Intelligence and Research (INR)
U.S. Department of State

Eric Bloch
Director
National Science Foundation

James H. Burrows
Director
Institute for Computer Sciences and Technology
National Bureau of Standards
U.S. Department of Commerce

Robert Dean
National Security Council

Diana Lady Dougan
U.S. Coordinator and Director
Bureau of International Communications & Information Policy
U.S. Department of State

Donald D. Engen
Administrator
Federal Aviation Administration
U.S. Department of Transportation

James C. Fletcher
Administrator
National Aeronautics and Space Administration

M. S. Forbes, Jr.
Chairman
Board for International Broadcasting

Frank L. Frisbie
Acting Associate Administrator
for Development and Logistics
Federal Aviation Administration
U.S. Department of Transportation

John H. Gibbons
Director
Office of Technology Assessment

Dr. Wendy Gramm
Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget

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Wayne Amy
Office of Management and Budget

Carol Crawford
Office of Management and Budget

Christian R. Holmes
Director
Trade and Development Program
International Development Cooperation Agency

Fred Ikle
Under Secretary of Defense for Policy
U.S. Department of Defense

Susan Liebeler
Chairman
U.S. International Trade Commission

J. Curtis Mack, II
Assistant Secretary for Oceans and Atmosphere
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

T. Allan McArtor
Administrator
Federal Aviation Administration
U.S. Department of Transportation

Jay F. Morris
Acting Administrator
Agency for International Development

Lt. General John T. Myers
Director
Defense Communications Agency
and
Manager
National Communications System

Lt. General William E. Odom
Director
National Security Agency

Ralph Oman
Register of Copyrights
U.S. Copyright Office
Library of Congress

Dennis Patrick
Chairman
Federal Communications Commission

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Mimi Weyforth Dawson,
Commissioner,
Federal Communications Commission

Patricia Diaz Dennis
Commissioner,
Federal Communications Commission

James H. Quello
Commissioner,
Federal Communications Commission

Lt. General Winston D. Powers
Director
Defense Communications Agency

Donald J. Quigg
Assistant Secretary and Commissioner of Patent
and Trademark Office
U.S. Department of Commerce

Thomas P. Quinn
Acting Assistant Secretary of Defense
for Command, Control, Communications and Intelligence

Joseph E. Ross
Director
Congressional Research Service

Charles F. Rule
Assistant Attorney General, Antitrust Division
U.S. Department of Justice

Alfred Sikes
Assistant Secretary for Communications & Information
National Telecommunications & Information Administration
U.S. Department of Commerce

S. Bruce Smart
Under Secretary for International Trade
International Trade Administration
U.S. Department of Commerce

Vice Admiral Jerry O. Tuttle
Director
Command, Control and Communications Systems
The Joint Chiefs of Staff

William Webster
Director
Central Intelligence Agency

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Charles Z. Wick
Director
United States Information Agency

Clayton Yeutter
U.S. Trade Representative
Executive Office of the President

Admiral Paul A. Yost
U.S. Coast Guard
U.S. Department of Transportation

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III. LIST OF CONTRACT STUDIES BY AGENCY

A. Congressional Research Service, The Library of Congress

1. Title: Space Activities of the United States, Soviet Union and Other Launching Countries: 1957-1986; Report No. 87-229 SPR

Synopsis: Five countries and one international organization currently have the ability to place satellites in space. The United States and the Soviet Union conduct the most comprehensive programs, and have been launching spacecraft for both military and civil purposes for almost 30 years. The entry of countries such as Japan and the members of the European Space Agency into the space business has introduced the element of economic competition in providing space services and hardware. This annual report reviews the space activities of the launching countries/organization--China, the European Space Agency/Arianespace, India, Japan, the Soviet Union, and the United States--both statistically and programmatically. This edition covers events through December 31, 1986, and highlights significant activities in 1986.

Status: Released February 27, 1987

Author: Marcia S. Smith, Specialist in Aerospace Policy, Science Policy Research Division

Cost: Unavailable; written in-house.

Contact: Jane Bortnick, Assistant Chief Science Policy Research Division

- 9 -

2. Title: Telecommunications and Information-Systems
Standardization--Is America Ready?; Report No.
87-458 SPR; CRS Report for Congress Sci-Tech Alert

Synopsis: Telecommunications and computer standards together are speeding the combination of telephone networks and computer networks on a global basis. This report concerns the processes and organizations through which standards for telecommunication and computer equipment are set. Examples are given of particular standards, their social or economic impacts, and the public policy issues which may foreseeably arise from such standards or, conversely, affect the standardization process. Related policy issues include international trade relations, antitrust, intellectual property, communications regulation, administration of the government's own information-systems establishment, and funding of standards research. The standards, competitiveness, and trade issues related to communications and computers involve the Department of State, the Department of Commerce, the Office of the U.S. Trade Representative, and the Federal Communications Commission. This CRS Report is one of a series of "Science and Technology Alerts," each of which describes a technology or process and its foreseeable impacts and issues.

Status: Released May 21, 1987

Author: David Hack, Analyst in Information Sciences and Technology, Science Policy Research Division

Cost: Unavailable; written in-house.

Contact: Jane Bortnick, Assistant Chief
Science Policy Research Division

- 10 -

3. Title: Digital Audio Recorder Act of 1987--Analysis of H.R. 1384 and S. 506 with Policy Alternatives; Report No. 87-698 SPR

Synopsis: This report analyzes a proposal to ban, from import to and sale in the United States, a new type of consumer product known as digital audio tape (DAT) recorders. The proposed Digital Audio Recorder Act would exempt from the ban, and permit import and sale of, only those DAT recorders equipped at the factory with a standardized Copy Code scanner. The scanner would make the recorders incapable of copying recorded music or musical broadcasts containing the standardized Copy Code. Policy alternatives are included.

Status: Released August 20, 1987

Author: David Hack, Analyst in Information Sciences and Technology, Science Policy Research Division

Cost: Unavailable; written in-house.

Contact: Jane Bortnick, Assistant Chief
Science Policy Research Division

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B. Defense Communications Agency
and the National Communications System

1. Title: Worldwide Digital System Architecture (WWDSA)

Synopsis: The basic objective of the WWDSA is to establish planning direction for the evolutionary growth of all DoD telecommunications. The architecture provides guidance for improvement in interoperability, survivability, security and overall operational efficiency among the various DoD telecommunications networks. In addition, the WWDSA effort addressed interoperability with civil, NATO and allied networks. The WWDSA architecture was summarized by a set of 14 key features. Since this effort was completed during the early 1980's, a review of the key features has recently been undertaken.

Status: Update study to complete early 1988.

Contractee: MITRE Corporation

Cost: Approximately \$300,000 for one year.

Contact: DCA: Dr. William Vogelzang, Code A710, (202)
692-6201

- 12 -

2. Title: The USEUCOM Theatre Communications Architecture (TCA) (U)

Synopsis: The USEUCOM Theater Communications Architecture (TCA) is being developed to satisfy the communications requirements of the U.S. European Command and its component commands, generally at the echelons above Corps or equivalent for missions supporting U.S. forces under NATO command and control. Such missions include Crisis Management, Reinforcement, Logistics, Intelligence, Special Operations, and Nuclear Operations. The requirements vary with level of conflict, e.g., peace, tension/crisis, conventional conflict, and selective nuclear release.

Major results to date include: generation of a wartime Requirements Data Base; development of models which transform input data on cost, networks, threat and user requirements into suggested improvements; and, exercise of these models under select scenarios to identify key deficiencies in terms of coverage, capacity and survivability.

Status: In process.

Contractee: DCA on behalf of the U.S. European Command

Cost: Approximately \$1.8 million in fiscal year 1988.

Contact: USEUCOM: LtCol Don Robertson, J6-PP, AUTOVON (314) 430-5564

DCA: Dr. R.D. Shults, Code A760, (202) 692-2490

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3. Title: NATO (Telecommunications) Rationalization

Synopsis: Rationalization is an established concept that includes such measures as 1) consolidation of support activities, 2) mutual cooperation and support, 3) restructuring of forces, 4) specialization of appropriate defense tasks, and 5) standardization. In telecommunications, rationalization includes mutual support actions, such as interconnections, interoperation, collocation, and tactical telecommunications subsystems and systems. NATO is currently "rationalizing" its NATO Integrated Communications System (NICS) through the use of Host Nation systems, tied together by cross border link requirements. The Defense Communications Agency has studied the pros and cons of U.S. involvement in the NATO Rationalization program, examining the potential for: capacity swapping on parallel cross border links to increase survivability; trading capacity on DCS cross border links for capacity on NATO links in other cross-border areas or for coverage in areas not served by the DCS, and; joint U.S./NATO projects addressing problems of mutual interest. The results of these studies suggest that substantial benefits would accrue to both the U.S. and NATO by expanded sharing of European telecommunications. Further joint U.S./NATO analysis is being conducted to develop specific mutual support actions.

Status: In process.

Contractee: DCA and DCA in-house resources.

Cost: Approximately \$200,000 per contractor technical staff year in fiscal year 1988. In-house resources of approximately 1.5 staff year professional, .1 staff year clerical support, and \$8,000 per year travel.

Contact: OASD/C31: Mr. Dennis Marquis, T&TC3, (202) 695-5970 (Policy Matters)
DCA: Mr. Richard Ventry, Code A750, (202) 692-1472

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4. Title: United States Pacific Command Architecture and Planning: Pacific Theater Command, Control and Communications (C3) Architecture (TC3A)

Synopsis: This project provides system architectures, design, integration, transition strategies, plans and program definitions necessary to ensure the availability of essential C3 and intelligence (C3I) systems to support the U.S. Pacific Command in a wartime environment. Of particular concern will be those C3 systems supporting both conventional and nuclear forces.

Status: In process.

Contractee: Defense Communications Agency

Cost: Approximately \$900, 000 per year

Contact: Mr. Mike Dollard, Code A740, (202) 692-2500

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5. Title: Spectrum Support

Synopsis:

a. International and National rules, regulations and procedures exist for the use of spectrum for satellite communications. Frequency spectrum is a vital resource for DoD. U.S. MILSATCOM architectures are based on the use of certain frequency bands and orbit positions. Minimum constraints and orbit position flexibility are most conducive to the development of optimal MILSATCOM architectures.

b. Additionally, DoD coordinates MILSATCOM systems on a national and international (e.g., NATO, bilateral) basis in accordance with the appropriate radio regulations. The MSO provides the leadership in the bilateral international coordination process for DoD systems.

c. In FY 87, the Consultative Committee International Radio (CCIR) and other ad hoc groups will be meeting to develop technical criteria and procedures for presentation to the WARC-88. These procedures and technical criteria will affect DoD satellite communications. Contractor assistance will be provided in assessing the impact of technical and procedural proposals on DoD satellite networks, develop alternate proposals, and develop potential DoD positions and rationale for national consideration.

d. Contractor support will also be provided concerning MOBILE WARC-87. This support will include evaluating the status of pertinent U.S. proposals (primarily non-DoD), determining possible DoD proposals to be made, and preparing DoD proposals as appropriate.

Status: In process, target date November 1987.

Contractee: DCA/CAS/MSO (A800)

Cost: \$90,000

Contact: DCA: William G. Long, Jr., Code A820, (202) 692-0281

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6. Title: International Command, Control and Communications (C3) Program (IC3P)

Synopsis: a. the program was established by the Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD/C3I) in 1982 to:

- Develop a good understanding of non-North Atlantic Treaty Organization regional and national C3 capabilities.
- Evaluate Munitions Control Program (MCP), Foreign Military Sales (FMS), and technology transfer cases.
- Develop C3 overviews on critical (friendly) countries of the world.
- Define C3 needs and recommend solutions for a commander of a unified or specified command, with respect to communications trade-offs and interoperability issues.

b. To support these efforts, an international C3 data base is being developed which catalogs C3 data, by a number of categories, in both automated and manual formats.

c. Results to date:

- C3 overviews published on 18 countries in the U.S. Central Command area of responsibility.
- A C3 interoperability study published on various countries in the Central Command area of responsibility.
- C3 overviews underway on seven countries in the Pacific Command area of responsibility.
- A C3 interoperability study underway on one country in the Pacific Command. Three more are under consideration for fiscal years 89-90.

Status: In process.

Contractee: International C3 Data Base: Office of the ASD/C3I (OASD/C3I)
C3 Overview and Interoperability Studies:
Defense Communications Agency (DCA)

Cost: Approximately \$183,000 per technical staff year in fiscal year 1988.

Contact: DCA: LTC Max Puckett, Code A740, (202) 692-2500
OASD/C3I: Mr. Dennis Marquis, T&TC3, (202) 695-5970

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JTC3A Contracts for Studies
With Relevance to
International Telecommunications Policy Matters
during Calendar Year 1987

1. Title: Engineering and Technical Support for the Development of a Global Telecommunications Master Plan and/or Architecture for Drug Interdiction (Task 108)

Synopsis: Contract support necessary to develop a Global Telecommunications Master Plan and/or Architecture in support of the National Drug Interdiction (DI) Program. The plan will be limited to identifying the telecommunications and interoperability requirements between the federal, state, and local activities involved in DI. Individual requirements will be provided by the DI participants. Lists of inventory equipment will be provided by DI participants. The contractor will assess the inventory of communications equipment available to each DI participant and the ability to interoperate with the inventories of equipment held by the other participants. There are approximately 30 federal activities participating in DI in one form or another. Each has a wide variety of commercial and DOD communications equipments that are either nonsecure, COMSEC device protected, or privacy device protected. Known communications capabilities include single channel radio, telephone, single channel satellite, facsimile, teletype, and computer to computer. The radios operate in all frequency bands from HF through SHF.

Status: To be completed on or before August 31, 1988.

Contractee: Architecture Directorate, JTC3A

Cost: Estimated costs not to exceed \$170,497.

Contact: Col. John M. Kuhn, USAF, CINC Architecture Division, Architecture Directorate, JTC3A, Fort Monmouth, NJ 07703-5513; telephone (201) 532-7736

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2. Title: Support for NATO Tri-Service Group on Communications and Electronic Equipment, Sub-Group 9 on Data Processing and Distribution (Task 1201)

Synopsis: NATO currently uses the Open Systems Interconnection (OSI) Reference Model as the architecture for the development of data communications Standardization Agreements (STANAGs). For each layer of the OSI Model, a service definition document and a protocol specification document will be provided by the contractor. Sub-Group 9 of the NATO Tri-Service Group on Communications and Electronic Equipment is responsible for developing the STANAGs corresponding to these documents. JTC3A is responsible for coordinating the U.S. review and analysis of each STANAG and the development of U.S. position papers.

Status: To be completed on or before August 31, 1988.

Contractee: Interoperability Assurance Directorate, JTC3A

Cost: Estimated costs not to exceed \$538,210.

Contact: Mr. Otto J. Schultz, Technical Standards Office, Interoperability Assurance Directorate, JTC3A, Washington, D.C. 20305-2000; (202) 694-8829.

3. Title: National Telecommunications Management Structure (NTMS)

Synopsis: The purpose of this effort is to develop a concept, an implementation plan, and approved policies and procedures for the establishment of a joint industry/Government management system and infrastructure to manage the nation's telecommunications resources during periods of stress.

Status: Implementation concept completed. Program plan ongoing. IOC in FY 1989.

Contractee: Office of the Manager, National Communications System

Cost: Estimate provided upon request.

Contact: Ms. Margaret A. Newland, Office of the Manager, NCS, Washington, D.C. 20305-2010, (202) 692-8506

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4. Title: Nationwide Emergency Telecommunications Service (NETS) (U)

Synopsis: NETS is a major National Communications System (NCS) program for the improvement of National Security Emergency Preparedness (NSEP) telecommunications. It will support key Government users in the event of major natural or man-made disasters, including nuclear war. NETS will circumvent the limited, commercially based, routing rules of the telephone carrier networks so that more possible connectivity may be used for NSEP traffic in times of network stress. Routing options that do not exist for normal PSN (Public Switched Network) calls will be "pieced together" under NETS control to build usable connections around damaged areas of the network.

Status: Ongoing.

Contractee: Office of the Manager, National Communications System

Cost: Estimate provided upon request.

Contact: Dr. Bruce Barrow, Office of the Manager, NCS, Washington, D.C. 20305-2010, (202) 692-2813

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5. Title: Commercial SATCOM Interconnectivity (CSI) (U)

Synopsis: CSI is a two-phased program with the objective of providing interoperability among commercial satellite terminals to enhance their potential for providing NSEP (National Security Emergency Preparedness) telecommunications services. Phase I is planned to provide a near-term capability for establishing an emergency network of interconnected commercial C-band satellite terminals strategically located and linked to telephone switches serving specific NSEP requirements of the Federal Government. Phase II, if approved and funded, will extend these efforts to KU-band, VSAT (Very Small Aperture Terminal), and Mobile Satellite technologies.

Status: Estimated completion date 1993 (Phase I)
Through 2000 (Phase II)

Contractee: Office of the Manager, National Communications System.

Cost: Estimate provided upon request.

Contact: Major Lee Williams, Office of the Manager, NCS,
Washington, D.C. 20305-2010, (202) 746-1249

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6. Title: Commercial Network Survivability (U)

Synopsis: The objective of the CNS program is to maximize the survivability and interoperability of commercial terrestrial telecommunication facilities and services in support of NSEP (National Security Emergency Preparedness) telecommunication requirements through transmission and switching enhancement. The five key program components are:

Carrier Interconnection
Mobile/Transportable Telecommunications
Acquisition and Maintenance of Data Bases
NSEP Survivability Requirements
Priority Treatment Capabilities

Status: On-going.

Contractee: Office of the Manager, National Communications System

Cost: Estimate provided upon request.

Contact: Mr. William Martens, Office of the Manager, NCS, Washington, D.C. 20305-2010, (202) 692-2813

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7. Title: Digital Facsimile and Video Teleconferencing
Standardization (U)

Synopsis: The general purpose of this contract is to provide support to the Office of the Manager, National Communications System, in the areas of digital facsimile and video teleconferencing. These services will become increasingly available as new fiber optic transmission systems and Integrated Services Digital Networks are deployed. In order that the Federal Government be able to use commercially available equipment, Government requirements need to be considered as national and international standards are developed. Part of this effort is, therefore, directed toward participation in non-government standards organizations.

Status: To be completed December 1989.

Contractee: Office of the Manager, National Communications System

Cost: Approximately \$650,000 a year.

Contact: Dr. Dennis Bodson, Office of the Manager, NCS, Washington, D.C. 20305-2010, (202) 692-2124.

- 23 -

8. Title: SESSTM Switch Radiation Hardness Assessment Program (U)

Synopsis: Integrated circuit components in electronic equipment are sometimes susceptible to performance degradation from nuclear radiation, from natural or weapon sources. The purpose of this contract is to assess the performance of a modern telecommunications digital switch, the AT&T SESSTM, in a fallout radiation environment, by evaluation of the individual piece-parts of the switch. Since this switch is similar, at the piece-part level, with many other switches worldwide, the results of this project could be related to performance of portions of the worldwide telecommunications network. Part of this effort is the sharing of technical observations among several switch manufacturers and users in various countries.

Status: To be completed September 1988.

Contractee: Office of the Manager, National Communications System

Cost: \$341,6000

Contact; Dr. Andrew Rausch, Office of the Manager, NCS, Washington, D.C. 20305-2010, (202) 692-2124.

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9. Title: ISDN Interoperability Studies (U)

Synopsis: As the existing and evolving digital infrastructure of telecommunication systems is converted to integrated digital services, interoperation between the new and old systems must be addressed to allow continued use of existing equipment. This project is concerned with development of technical positions relative to interworking of the various systems, including liaison with non-government standards organizations to insure that Government requirements are considered as the new systems are developed.

Status: On-going

Contractee: Office of the Manager, National Communications System

Cost: Approximately \$600,000 from August 1987 through August 1988.

Contact: Mr. Frank M. McClelland, Office of the Manager, NCS, Washington, D.C. 20305-2010, (202) 692-2124.

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C. Federal Communications Commission

Working Paper Series
Office of Plans and Policy

1. Social Objectives and Competition in Common Carrier Communication: Incompatible or Inseparable? by Nina W. Cornell, Daniel Kelley, Peter R. Greenhalgh; April 1980. NTIS #PB81 169179; \$8.00; pp. 67.
2. Frequency Spectrum Deregulation Alternatives, by Douglas W. Webbink; October 1980. NTIS #PB81 169203; \$8.00; pp. 52.
3. Speech Bandwidth Reduction, by Philip B. Gieseler and John B. O'Neal, Jr.; November 1980. NTIS #PB81 128068; \$6.50; pp. 35.
4. Reforming Regulatory Policy for Private Line Telecommunications Services: Implications for Market Performance, by Jerry B. Duvall, and Michael D. Pelcovits; December 1980. NTIS #PB81 172520; \$8.00; pp. 58.
5. Economics and Telecommunications Privacy: A Framework for Analysis, by James A. Brown, Jr. and Kenneth Gordon; December 1980. NTIS #PB81 169229; \$8.00; pp. 50.
6. Deregulating Personal and Amateur Radio, by Alex D. Felker and James A. Brown, Jr., August 1981. NTIS #PB81 247751; \$10.50; pp. 70.
7. Negotiating for Improved Interconnection: The Incentives to Bargain, by Roy L. Morris and Robert S. Preece, January 1982. (Revised April 1982). NTIS #PB82 237066; \$9.00; pp. 58.
8. Deregulation After Divestiture: The Effect of the AT&T Settlement on Competition, by Daniel Kelley; April 1982. NTIS #PB82 208232; \$10.50; pp. 80.
9. Statistical Determinants of Radio Stations' Revenues and Trading Prices, by James A. Brown, Jr., August 1982. NTIS #PB83 117291; \$8.50; pp. 44.
10. The Effect of Higher Telephone Prices on Universal Service by Kenneth Gordon and John Haring, March 1984. NTIS #PB84 186790; \$4.50; pp. 45.
11. Divestiture and the Separate Subsidiary Requirement, by Florence O. Setzer, March 1984. NTIS #PB84 186824; \$4.50; pp. 42.

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12. Bypass of the Local Exchange: A Quantitative Assessment; by Gerald W. Brock, September 1984. NTIS #PB85 107811; \$11.50; pp. 93.
13. Promoting Competition Piecemeal in International Telecommunications, by Evan Kwerel, December 1984. NTIS #PB85 151223/AS; \$10.00; pp. 54.
14. Implications of Asymmetric Regulation for Competition Policy Analysis, by John Haring, December 1984. NTIS #PB85 147254/AS; \$8.50; pp. 40.
15. Spectrum Management Policy in the United States: An Historical Account, by John O. Robinson, April 1985. NTIS #PB85 204550/AS; \$14.50; pp. 72.
16. Using Auctions to Select FCC Licensees, by Evan Kwerel and Alex D. Felker; May 1985. NTIS #PB85 214484/AS; \$8.50; pp. 33.
17. The FCC, the OCCs and the Exploitation of Affection, by John Haring; Working Paper #17, June 1985. NTIS #PB85 234250/AS; \$7.00; pp. 16.
18. Telephone Pricing to Promote Universal Service and Economic Freedom, by Gerald W. Brock; Working Paper #18, January 1986; NTIS #PB86 155538/AS; \$11.95; pp. 63.
19. Promoting Competition Between International Telecommunication Cables and Satellites, by Evan R. Kwerel and James E. McNally, Jr.; Working Paper #19, January 1986. NTIS #PB86 156288/AS; \$11.95; pp. 75.
20. Alternatives for Improved Personal Communications, by James e. McNally, Jr.; Working Paper #20, August 1986. NTIS PB87 118170/AS; \$18.95; pp. 92.
21. Private Frequency Coordination in the Common Carrier Point-to-Point Microwave Service, by John R. Williams; September 1986. NTIA #PB87 118188/AS; \$13.95; pp. 77.
22. Competition Policy in the Post-Equal Access Market, by John R. Haring and Evan R. Kwerel; February 1987. NTIS #PB87.
23. Loosening the Ties that Bind: Regulating the Interstate Telecommunications Market for the 1990's, by Kathleen B. Levitz; February 1987. NTIS #PB87.

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Above publications may be ordered from NTIS by mail or telephone. Please include NTIS number (see above) when ordering.

National Technical Information
5285 Port Royal Road
Springfield, Virginia 22161
(703) 487-4650

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D. International Development Cooperation Agency,
Agency for International Development

F.Y. 1987 A.I.D. Studies Relevant to International
Telecommunications Policy Issues

The following were produced as a series, "Telecommunications Rural Development," focusing on the innovations, lessons, and results of the A.I.D. Rural Satellite Program, a research effort exploring the potential uses of telephone-based telecommunications in supporting rural development. Case studies are based on the experiences of putting in place three rural telecommunication networks and development programs in Indonesia, the West Indies, and Peru. The overall project was as \$10 million effort; these studies are one of many products of that project which included the establishment of systems in three LDC regions.

1. Title: An Overview of the A.I.D. Rural Satellite
Program; K. Tietjen

Synopsis: Summary and overview of A.I.D. Rural Satellite Program and its pilot projects, including descriptions of institutional placement and technical systems, operations and program development, training efforts and cost effectiveness. Based on Program experience, explores the various uses of telecommunications technology for development support and summarizes lessons learned in course of project implementation.

Status: Completed May, 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D.,
Washington, D.C. 20523, Attention: Clifford
Block.

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2. Title: The Design and Installation of Rural Telecommunications Networks: Lessons from Three Projects; D. Goldschmidt, K. Tietjen, W. Shaw
- Synopsis: Description of telecommunications systems used by the A.I.D. Rural Satellite Program in rural areas of Indonesia, the West Indies, and Peru, including system development and design considerations, equipment specifications, installation, and technical performance.
- Status: Completed January, 1987
- Contractor: Academy for Educational Development
- Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.
3. Title: Distance Education via Satellite: A Study of the Indonesian Distance Education Satellite System; W. Shaw
- Synopsis: Case study of the development of a 15-site telecommunications network used for university-level distance teaching and training in the remote eastern islands of Indonesia.
- Status: Completed May, 1987
- Contractor: Academy for Educational Development
- Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.
4. Title: An Analysis of the Costs and Revenues of Rural Telecommunications Systems; D. Goldschmidt
- Synopsis: Examination of the cost elements and revenues of satellite-based communications systems for rural area, based on a Phillipines case study.
- Status: Completed January, 1987
- Contractor: Academy for Educational Development
- Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.

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5. Title: A Handbook for Planning Telecommunications Support Projects; K. Tietjen

Synopsis: Summary guide to assist telecommunications and development specialists in identifying the most effective way to use existing and anticipated telecommunications systems to support development efforts, emphasizing services to rural areas in the developing world. Focuses on the process and issues of planning telephone-based communications support projects, addressing pre-feasibility, feasibility, and operational planning stages.

Status: Completed January, 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.

6. Title: Training Materials for Audioconferencing Networks; W. Shaw

Synopsis: Collection of training materials developed by project staffs. Used for teleconference delivery and distance instruction support in Indonesia and the West Indies

Status: Completed August 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.

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7. Title: Peru Rural Communication Services Project: Final Evaluation Report: J. Mayo, G. Heald, S. Klees, M. Cruz

Synopsis: Evaluation and analysis of a rural telephone system in Peru, including use and impact of commercial telephone services, teleconferencing for cial service delivery and instruction, and cost recovery and financing issues.

Status: Completed June, 1987

Contractor: Florida State University

Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.

8. Title: New Models for Distance Education in the Developing World; K. Tietjen

Synopsis: Examination of distance education strategies used in Indonesia and the West Indies

Status: Completed March, 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.

9. Title: Telecommunications for Agriculture and Rural Development: Experiences of the A.I.D. Rural Satellite Program; A. Stahmer

Synopsis: Exploration and description of telecommunications applications to support agricultural and rural development programs.

Status: Completed January, 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D., Washington, D.C. 20523, Attention: Clifford Block.

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10. Title: Telecommunications Services for Health Care:
Experiences of the A.I.D. Rural Satellite
Program; A. Stahmer

Synopsis: Description of telecommunications applications to
support health care program in the developing
world.

Status: Completed January, 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D.,
Washington, D.C. 20523, Attention: Clifford
Block.

11. Title: Institutional Development: A Study of Three
International Development projects of the Rural
Satellite Program; M. Calvano

Synopsis: Examination of the factors affecting the adoption
and institutionalization of the A.I.D. Rural
Satellite Program telecommunications projects in
Indonesia, the West Indies, and Peru.

Status: Completed February, 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D.,
Washington, D.C. 20523, Attention: Clifford
Block.

12. Title: University of the West Indies Distance Teaching
Experiment; A. Stahmer, G. Lalor

Synopsis: Description of the University of the West Indies
Distance Teaching Experiment (UWIDITE), a
teleconferencing-based instructional program.

Status: Completed January, 1987

Contractor: University of the West Indies

Contact: Office of Education, S&T Bureau, A.I.D.,
Washington, D.C. 20523, Attention: Clifford
Block.

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13. Title: Peru Rural Communications Services Project:
Final Field Report; L. Medrano

Synopsis: Description of a rural communications project
focusing on the use of teleconferencing for
training and social service delivery in rural
Peru.

Status: Completed February, 1987

Contractor: Academy for Educational Development

Contact: Office of Education, S&T Bureau, A.I.D.,
Washington, D.C. 20523, Attention: Clifford
Block.

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International Development Cooperation Agency,
U.S. Trade and Development Program

1. Title: Telecommunications Definitional Mission & Feasibility Study

Region: Chile

Synopsis: DM - Preliminary research to determine if feasibility study is necessary.

FS - Determined the feasibility of a rural cellular telephone system and a satellite ground segment for Chile's expanding telecommunication system.

Status: DM - Completed - August 3, 1987

FS - Proposals are now being submitted, completion date - August 1988

Cost: DM - \$28,000

FM \$500,000

Contractor: Department of Commerce/National Telecommunications & Information Administration

Contact: Dwight Johnson, TDP, 875-4357
2. Title: Frequency Modulation - NTIA

Region: Thailand

Synopsis: Explored telecommunications trade opportunities in Thailand as part of a four-week on-site study to assist the Post and Telegraph Department (PTD) of Thailand in developing a computer aided spectrum management system.

Status: Oct 31, 1987: Report published along with business opportunities booklet which was distributed to the private sector.

Cost: \$157,000

Contractor: Department of Commerce/National Telecommunications & Information Administration

Contact: Jack Williams, TDP, 875-4357

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3. Title: Telecommunications Definitional Mission
Region: Malaysia
Synopsis: A Definitional Mission to assess the feasibility of value-added phone services in which the Ministry of Telecommunications has some interest.
Status: Coampleted on July 15, 1987
Cost: \$9,737
Contractor: Plan Wright Associates, Inc. of New Jersey
Contact: Jack Williams, TDP, 875-4357

4. Title: Market Survey - Telecommunications Definitional Mission
Region: Indonesia
Synopsis: Department of Tourism, Post & Telecommunications requested TDP support in a DM for a data & text communications network in Indonesia to provide the Indonesian business, banking, industrial, and government sectors with the infrastructure necessary to increase the efficiency and accelerate economic growth. The team focused on this scope of work, in addition explored other market opportunities and attended the International Communications Trade Show.
Status: To be completed May 15, 1988
Cost: \$90,000
Contractor: U.S. Telecommunications Suppliers Association, Chicago, Illinois. Contact Penny Cleving (312) 782-8597 for report.
Contact: Jack Williamson, TDP, 875-4357

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5. Title: Telecommunications Orientation Visit
Region: Tunisia
Synopsis: An orientation visit was held in conjunction with a data communications study in Tunisia.
Status: Completed - Summer of 1987
Cost: \$7,700
Contractor: Management Logistics International
Contact: Van McCutcheon, TDP, 875-4357

6. Title: Telecommunications Orientation Visit
Region; Turkey
Synopsis: Turkish experts were interested in establishing a frequency monitoring and control system similar to that which the FCC employs here. Funded an orientation visit of Turkish officials to review technology.
Status: Completed - Summer of 1987
Cost: \$23,837
Contractor; Bill Salber
Contact: Van McCutcheon, TDP, 875-4357

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E. National Aeronautics and Space Administration

Two offices in NASA Headquarters conduct or fund studies in telecommunications: The Communications and Data Systems Division, Office of Space Operations (Code T) and the Communications and Information Systems Division, Office of Space Science and Applications (Code E). Also, NASA's Aerospace Data Base which includes a listing of all publicly available studies and reports published by NASA. This data base is commercially available in the United States through the Dialog system.

1. Title: Development of Protection criteria for data relay satellites

Contractor: Systematics General Corporation for the Communications and Data Systems Division, Office of Space Operations

Contact: David Struba, Manager, Spectrum Management Program, Communications and Data Systems Division, Office of Space Operations, (453-8440)

2. Title: Development of protection criteria for ground stations in the Space Research Service

Contractor: Systematics General Corporation for the Communications and Data Systems Division, Office of Space Operations

Contact: David Struba, Manager, Spectrum Management Program, Communications and Data Systems Division, Office of Space Operations, (453-8440)

3. Title: Power flux density for earth orbiting satellites

Contractor: Systematics General Corporation for the Communications and Data Systems Division, Office of Space Operations

Contact: David Struba, Manager, Spectrum Management Program, Communications and Data Systems Division, Office of Space Operations, (453-8440)

4. Title: Interactions between Eutelsat II and U.S. networks

Contractor: Systematics General Corporation for the Communications and Data Systems Division, Office of Space Operations

Contact: David Struba, Manager, Spectrum Management Program, Communications and Data Systems Division, Office of Space Operations, (453-8440)

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5. Title: Changes to Article 14 of the Radio Regulations, specifically to accord primary status to registered assignments made under this Article

Contractor: Systematics General Corporation for the Communications and Data Systems Division, Office of Space Operations

Contact: David Struba, Manager, Spectrum Management Program, Communications and Data Systems Division, Office of Space Operations, (453-8440)

6. Title: Inter-operability of data relay satellites

Contractor: Systematics General Corporation for the Communications and Data Systems Division, Office of Space Operations

Contact: David Struba, Manager, Spectrum Management Program, Communications and Data Systems Division, Office of Space Operations, (453-8440)

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F. Office of Technology Assessment

1. Title: Defending Secrets, Sharing Data: New Locks and Keys for Electronic Information

Synopsis: The influence of defense and intelligence interests on Federal policy for the security of unclassified information in communications and computer systems has become highly controversial. Representatives from U.S. industry, scientific and librarians' associations, civil liberties organizations, and the Department of Defense, for examples, have expressed a number of contrasting concerns for the effects of recent policies on commerce, the free flow of information, and national defense. These concerns point to a need to reexamine Federal policy and its formulation; and they underlie legislation now moving through Congress.

Status: Released October 1987

Author: OTA Project Staff under John Andelin, Assistant Director, OTA, Science, Information, and Natural Resources Division

Cost: Unavailable; written in-house.

Contact: Copies are available from the Superintendent of Documents, U.S. Government Printing Office; (202) 783-3238. GPO Stock No. is 052-003-01083-6; the price is \$8.50.

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2. Title: Communications Systems for an Information Age

Synopsis: To explore the roles the Federal Government might play in computers and communications, with particular emphasis on the issues raised by technological advances, this study will: 1) characterize the new communications technologies and explore the intricacies of coordinating them; 2) identify their potential for meeting changing communications goals and needs; 3) discuss conflicts that might stem from their development and use; and 4) examine new communications systems abroad and their potential relationships to the U.S. system.

Examples of the issues to be examined are 1) Should technical standards be adopted to foster network development, or will they serve to retard technological innovation? 2) How does technological change affect the assumptions underlying traditional communications policy? 3) What is the role of the Federal Government in the development of technologies and in the distribution of economic opportunities? 4) How might the goals of communications policy change given new technological capabilities; and 5) What are the implications of U.S. communications policy for U.S. competitiveness overseas?

Requestors: This study was requested by Congressman John D. Dingell, Chairman, House Committee on Energy and Commerce, by letter dated August 26, 1986. Other interested committees are the Senate Committee on Commerce, Science, and Transportation, and the House Committee on Science and Technology.

Status: Twenty-three months after Technology Assessment Board approval, tentatively October 1986 - September 1988.

Cost: Estimated at \$690,000 for two years

Contact: Linda Garcia, OTA, Communications and Information Technologies Program (202) 226-2247

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G. U.S. Department of Commerce,
International Trade Administration

ITA Contracted Telecommunications Studies

1. Title (country): Brazil

Status: 2/87

Contractor: Simonsen Associados, Sao
Paulo

Cost: \$6,000

Contact: Andrew Bihun, Director, Market Research Division, U.S.
& FCS, Room 2012, U.S. Department of Commerce; (202)
377-5037

2. Title (country): Italy (Fiber Optics)

Status: 5/87

Contractor: Claudio Buchal, Milan

Cost: \$8,000

Contact: Andrew Bihun, Director, Market Research Division, U.S.
& FCS, Room 2012, U.S. Department of Commerce; (202)
377-5037

3. Title (country): Southern China

Status: 3/87

Contractor: Business International,
Hong Kong

Cost: \$12,000

Contact: Andrew Bihun, Director, Market Research Division, U.S.
& FCS, Room 2012, U.S. Department of Commerce; (202)
377-5037

4. Title (country): Australia

Status: 3/87

Contractor: Touche Ross International,
Sydney

Cost: \$8,000

Contact: Andrew Bihun, Director, Market Research Division, U.S.
& FCS, Room 2012, U.S. Department of Commerce; (202)
377-5037

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5. Title: Canada; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division,
U.S. & FCS, Room 2012, U.S. Department of
Commerce; (202) 377-5037
6. Title: China; Telecommunications Equipment (minus S.
China)
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division,
U.S. & FCS, Room 2012, U.S. Department of
Commerce; (202) 377-5037
7. Title: Finland; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division,
U.S. & FCS, Room 2012, U.S. Department of
Commerce; (202) 377-5037
8. Title: France; Broadcasting Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division,
U.S. & FCS, Room 2012, U.S. Department of
Commerce; (202) 377-5037
9. Title: France; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division,
U.S. & FCS, Room 2012, U.S. Department of
Commerce; (202) 377-5037
10. Title: Germany, West; Local Area Networks
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division,
U.S. & FCS, Room 2012, U.S. Department of
Commerce; (202) 377-5037

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11. Title: Hong Kong; Data Communications/Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division, U.S. & FCS, Room 2012, U.S. Department of Commerce; (202) 377-5037
12. Title: Italy; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division, U.S. & FCS, Room 2012, U.S. Department of Commerce; (202) 377-5037
13. Title: Norway; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division, U.S. & FCS, Room 2012, U.S. Department of Commerce; (202) 377-5037
14. Title: Phillipines; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division, U.S. & FCS, Room 2012, U.S. Department of Commerce; (202) 377-5037
15. Title: Portugal; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division, U.S. & FCS, Room 2012, U.S. Department of Commerce; (202) 377-5037
16. Title: Spain; Telecommunications Equipment
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division, U.S. & FCS, Room 2012, U.S. Department of Commerce; (202) 377-5037

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17. Title: United Kingdom; Digital Cellular Radio
Status: pending, to be completed in 1987
Contact: Andrew Bihun, Director, Market Research Division,
U.S. & FCS, Room 2012, U.S. Department of
Commerce; (202) 377-5037

ITA In-House Telecommunications Studies

1. Title: Competitive Assessment of the Central Office
Digital Switch Industry
Synopsis: The report describes the industry, its position
in the U.S. and world markets, and draws
conclusions as to how competitive U.S. producers
of this equipment are. It includes world market
production and consumption data.

Status: September, 1986

Contractor: In-house.

Contact: Office of Telecommunications, Science &
Electronics, Trade Development, ITA, Room 1001A,
U.S. Department of Commerce; (202) 377-4466

Price: \$6. GPO Stock No.: 003-009-00486-1

2. Title: Competitive Assessment of the Cellular Radio
Telephone Industry

Synopsis: The report will describe the industry, its
position in U.S. and world markets, and will draw
conclusions as to the competitiveness of U.S.
producers. The study will suggest options for
industry and government that can improve the
industry's competitive position.

Status: To be published late 1987

Contractor: In-house

Contact: Linda Gossack, Office of Telecommunications,
Science & Electronics, Trade Development, ITA,
Room 1001A, U.S. Department of Commerce; (202)
377-4466

Price: Unknown

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3. Title: Competitive of the U.S. Giver Optics Industry
(Revised)

Synopsios: The report updates the first Assessment on the industry (September, 1984). Like the first report, the study will describe the industry, its position in the U.S. and world markets, and will draw conclusions on the competitiveness of U.S. producers in this sector. The study will also include certain trade and production data, and make recommendations for industry and government action to improve the industry's competitive position.

Status: To be published late 1987/early 1988

Contractor: In-house

Contact: James M. McCarthy, Office of Telecommunications,
Science & Electronics, Trade Development, ITA,
Room 1001A, U.S. Department of Commerce; (202)
377-4466

Price: Unknown

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Contact: Sandy Perry-Stewart, (202) 377-5802

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Effects of Local and Skywave Interference on CB Radio Range. L. Berry	78-1	May 78	11.95 91 pg	PB 282-889/AS
Access Area Switching and Signaling Concepts, Issues, and Alternatives. R. Linfield & M. Nesenbergs	78-2	May 78	16.95 150 pg	PB 283-464/AS
Arpanet Host to Host Access and Dissengagement Measurements. J.A. Payne	78-3	May 78	11.95 62 pg	PB 283-354/AS
Digital Communication Performance Parameters for Proposed Federal Standard 1033: Standard Parameters. N.B. Seitz & P. McManamon	78-4 (I)	May 78	16.95 175 pg	PB 283-580/AS
Digital Communication Performance Parameters for Proposed Federal Standard 1033: Application Examples. F.G. Kimmett & N.B. Seitz	78-4 (II)	May 78	11.95 66 pg	PB 284-235/AS
Measuring Characteristics of Micro-wave Mobile Channels. R.W. Hubbard, R.F. Linfield & W.J. Hartman	78-5	June 78	11.95 57 pg	PB 283-944/AS
A Preliminary Estimate of the Effects of Spread-Spectrum Interference on TV. J.R. Juroshek	78-6	June 78	9.95 35 pg	PB 286-633/AS
Interfacing the Automated Maritime Mobile Telephone System with the U.S. Public Telephone Network. R.F. Linfield & T. de Hass	78-7	Aug. 78	11.95 66 pg	PB 286-517/AS

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<u>TITLE & AUTHOR</u>	<u>REPORT #</u>	<u>DATE</u>	<u>PRICE</u>	<u>ACCESSION #</u>
Estimates of the Atmospheric Transfer Function at ShF and EHF. EJ. Dutton & H.T. Dougherty	78-8	Aug. 78	9.95 34 pg	PB 286-632/AS
Current Activities in Small Earth Terminal Satellite Domestic Telecommunications. P.I. Wells	78-9	Aug. 78	16.96 134 pg	PB 2876-366/AS
Earth-Space Attenuation Predictions for Geostationary Satellite Links in the U.S.A. E.J. Dutton	78-10	Oct. 78	11.95 48 pg	PB 289-841/AS
Spectrum Efficiency for Multiple Independent Spread-Spectrum Land Mobile Radio Systems. L.A. Berry & E.J. Haakinson	78-11	Oct. 78	11.95 69 pg	PB 291-539/AS
Measurements of LF and MF Radio Propagation Over Irregular Terrain. W.A. Kissick, E.J. Haakinson & G.H. Stonehocker	78-12	Nov. 78	16.95 181 pg	PB 291-732/AS
Control Switching in a Military Switching Environment. R.F. Linfield	79-13	Jan. 79	22.95 246 pg	PB 292-376/AS
Aircraft Obstruction of Microwave Links. R.E. Skerjanec & R.W. Hubbard	79-14	Jan. 79	11.95 68 pg	PB 292-372/AS
An Additional Catalog of Programs and Data for 100 MHz - 100 GHz Radio Systems Predications. J.T. Collins & F.K. Steele	79-15	Jan. 79	9.95 43 pg	PB 293-366/AS

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<u>TITLE & AUTHOR</u>	<u>REPORT #</u>	<u>DATE</u>	<u>PRICE</u>	<u>ACCESSION #</u>
Estimate of Maximum Electric Field Strengths in the Automobile Environment. H.J. Lieve & D.D. Crombie	79-16	Feb. 79	9.95 35 pg	PB 294-819/AS
Received Signal Level (RSL) Measurement and Analysis with a Desk-Top Computer. D.R. Wortendyke & T.H. Hildebrandt	79-17	Feb. 79	16.95 155 pg	PB 294-820/AS
Automated Digital Systems Engineering Model. L.G. Hause & D.R. Wortendyke	79-18	Mar. 79	11.95 93 pg	PB 294-960/AS
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H. U.S. Department of Defense

1. Title: AD Number: CO31032L
Unclassified Title: Impact of the 1979 World
Administrative Radio Conference (WARC) on USAF
space programs and plans. Revised.
Report Number: ANSER-STDN-82-1-Rev

Synopsis: This report examines how the results of the 1979 World Administrative Radio Conference (WARC) may affect USAF space programs and plans. The Organization of the International Telecommunication Union (ITU), evolution of the 1979 WARC, U.S. objectives, and DOD space objectives are discussed. An analysis of the 1979 WARC results is presented for each type of satellite service that USAF uses, with discussions on how specific satellite programs are affected. Future radio conferences are discussed, with emphasis on those that could affect USAF space programs and plans, and recommendations are made as to how USAF may influence future radio conferences. Changes to the satellite frequency bands, available to the military, are presented and the frequency bands, by mission areas, that should be available for USAF satellite programs through the year 200 are outlined. (Author)

Status: Mar, 1983

Contractor: Analytic Services Inc. Arlington, Va.

Report Classification: Secret

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2. Title: AD Number: CO28330L
Unclassified Title: Impact of the 1979 World
Administrative Radio Conference (WARC) on USAF
space programs and plans.
Report Number: ANSER-STDN-82-1

Synopsis: This report examines how the results of the 1979 World Administrative Radio Conference (WARC) may effect USAF space programs and plans. The Organization of the International Telecommunication Union (ITU), evolution of the 1979 WARC, U.S. objectives, and DOD space objectives are discussed. An analysis of the 1979 WARC results is presented for each type of satellite service that USAF uses, with discussions on how specific satellite programs are affected. Future radio conferences are discussed, with emphasis on those that could affect USAF space programs and plans, and recommendations are made as to how USAF may influence future radio conferences. Changes to the satellite frequency bands, available to the military, are presented and the frequency bands, by mission areas, that should be available for USAF satellite programs through the year 2000 are outlined. (Author)

Status: Dec , 1981

Contractor: Analytic Services Inc., Arlington, Va.

Report Classification: Secret

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3. Title: AD Number: CO 17271
Unclassified Title: Commercial Satellite
Utilization.
Report Number: DCEC-TN-33-76

Synopsis: International and Domestic Satellite Systems are investigated for both emergency and routine applications by the DCS. The effects on applications of the differences between the DSCS and commercial systems are discussed. The implications of service, interoperability, flexibility, cost, and policy on the three alternatives of leased circuits, leased transponders, and leased satellites during emergency conditions are considered. Cost effectiveness for routine service is also studied. (Author)

Status: May , 1977

Contractor: Defense Communications Engineering Center,
Reston, Va.

Report Classification: Unclassified .

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4. Title: AD Number: B107920L
Unclassified title: Improved DOD use of
international commercial satellite systems --
Policy Implications and Concepts.

Status: Dec 05, 1986

Contractor: M/A-COM Government Systems Div Vienna, Va.

Report Classification: Unclassified

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5. Title: AD Number: B100080L
Unclassified Title: Employment of telegraph channels of communication of the Minmorflot (Ministry of the Maritime Fleet) via an ISZ (Artificial Satellite of the Earth) (ISPOL'Zovaniye Telegrafnykh Kanalov Suyazi Minmorflota Cherez ISZ).
Report Number: NISC-TRANS-7978

Synopsis: The experience of operation of the maritime satellite system of communication Marisat served as the basis of the creation, by interested countries, of the international system INMARSAT. Thanks to the simplicity of maintenance and the high qualitative indices of the system (reliability 0.98-0.99; trustworthiness 0.00001 and high operativeness) the growth in the equipping of ships with satellite communication apparatus by far exceeded the predicted. The Soviet Union made one of the greatest contributions into the general fund of the system (14.1%) and is an active participant in it. The INMARSAT system includes space and earth segments. The operational space segment consists of three geostationary satellites, located at an altitude of approximately 36 thousand KM above the equator in points over the Atlantic, Indian and Pacific oceans and ground facilities for telemetry, control and tracking the position of the ISZS, their condition and serviceability. The earth segment of the system comprises the short stations operating via the Atlantic ISZ in Southbury (USA, Connecticut) and EIK (Norway), The Pacific Ocean Satellite in Santa Paula (USA, California), in Ibaraki (Japan) and Yamaguchi (Japan), operates via the Indian satellite.

Status: March 11, 1986

Contractor: Naval Intelligence Support Center Washington, D.C. Translation Division

Report Classification: Unclassified

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6. Title: AD Number: B096630L
Unclassified Title: Long-distance telephone service in Moscow.
Report Number: FTD-ID(RS)T0776-85

Synopsis: The Moscow Territorial Long-distance and International Communications Control Center (MTTSUMS) offers its subscribers the following services: (1) direct-dial long-distance telephone service (AMTS); (2) Long-distance pay-telephone service (MTA); (3) Round-the-clock communication, through customer services, with all regional and republic centers, and through them with all localities in the nation equipped with telephone services; (4) telephone calls to parties in those foreign countries with which the USSR maintains telephone service; (5) long-distance telephone circuits in permanent or temporary lease use, according to agreement between the interested organizations and the MTTSUMS.

Status: Oct. 28, 1985

Contractor: Foreign Technology Div Wright-Patterson AFB OH

Report Classification: Unclassified

- 53 -

7. Title: AD Number: B087695
Unclassified Title: Appraisal of Problems in
using National Military Networks to support NICS
(NATO Integrated Communications System) user
services.
Report Number: STC-TM-686

Synopsis: This memorandum presents the results of a study
of problems, technical and non-technical,
associated with concepts for using national
military communications resources to support NICS
user services. These concepts range from the use
of national transmission facilities to replace or
supplement nato-owned transmission capacity, to
the interconnection of national switched networks
to provide wide-area communications services for
the NATO community. (Author)

Status: Oct , 1984

Contractor: Shape Technical Center the Hague (Netherlands)

Report Classification: Unclassified

- 54 -

8. Title: AD Number: B077831L
Unclassified Title: Excerpts of the
International Telecommunications Union (ITU)
Radio Regulations and United States Table of
Frequency Allocations that pertain to space
Communications Services. Appendix B thru E.
Report Number: ECAC-CR-83-105-APP-B-E

Synopsis: Appendices in this volume include: Space-related
appendices, resolutions and recommendations from
the 1982 edition of the ITU Radio Regulations;
and a bibliography.

Status: Jul , 1983

Contractor: Electromagnetic Compatibility Analysis Center,
Annapolis, Md.

Report Classification: Unclassified

- 55 -

9. Title: AD Number: B077830L
Unclassified Title: Excerpts of the
International Telecommunications Union (ITU)
Radio Regulations and United States Table of
Frequency Allocations that pertain to space
communications services.
Report Number: ECAC-CR-83-105

Synopsis: Provisions of the 1982 version of the
International Telecommunication Union (ITU) radio
regulations that pertain to space
radiocommunication services are identified and
compiled. Background information including the
historical development of the ITU radio
regulations, where appropriate, is presented.
(Author)

Status: Jul , 1983

Contractor: Electromagnetic Compatibility Analysis Center,
Annapolis, Md.

Report Classification: Unclassified

- 56 -

10. Title: AD Number: B075631L
Unclassified Title: Handbook of Pacific and
Indian Ocean Area Communications Satellites'
Operating Characteristics.
Report Number: TR-83-2

Synopsis: This Handbook delineates the characteristics of
US and allied military, domestic, and
international satellite communications systems
that provide coverage of the Pacific and Indian
Ocean regions.

Status: May , 1983

Contractor: Rockwell International, Arlington, Va.,
Washington Systems Engineering and Analysis Dept.

Report Classification: Unclassified

- 57 -

11. Title: AD Number: B063978L
Unclassified Title: For Space Communications
peaceful orbits of "Intersputnik"
Report Number: FTD-ID(RS)T0331-82

Status: Mar 23, 1982

Contractor: Foreign Technology Div Wright-Patterson AFB OH

Report Classification: Unclassified

- 58 -

12. Title: AD Number: B029770
Unclassified Title: Commercial Communications
Satellites for Department of Defense Requirements.
Report Number: 0580-78

Synopsis: Communications Satellites have shown that they are the most capable communications system yet devised and ideally suited to satisfy Department of Defense (DOD) Communications requirements. This study examines the history of communications satellites, the characteristics of communications satellites and their use in the commercial and military arenas. An examination of commercially leased vice military procurement to satisfy DOD satellite communications requirements along with their advantages and disadvantages is discussed. The study concludes that, with full consideration provided to the various unique requirements levied on the communications satellite by DOD, there is a place within the DOD for both elements: Commercial communications satellites for general purpose and/or administrative DOD communications and military procured communications satellites to support unique DOD requirements. (Author)

Status: May , 1978

Contractor: Air Command and Staff Coll Maxwell AFB Ala

Report Classification: Unclassified

- 59 -

13. Title: AD Number: A157398
Unclassified Title: Commercial and Military
Communication Satellite Acquisition practices.
Report Number: RAND/R-3121-AF

Synopsis: This study test the contention that the commercial sector consistently manages acquisition programs better than the military, by examining management practices with program outcomes associated with the acquisition of communication satellites by the air force and by the International Telecommunications Satellite Organization (INTELSAT), the study finds that the military and commercial programs are organized and managed in much the same way and that both produce well-functioning, useful spacecraft, several significant differences in management practices and outcomes, however, suggest that the air force may be able to improve its acquisition activities. It concludes that, in carefully selected situations, there should be a place for the performance-oriented INTELSAT management practices. (Author)

Status: May , 1985

Contractor: Rand Corp Santa Monica, Ca.

Report Classification: Unclassified

- 60 -

14. Title: AD Number: A096675
Unclassified Title: Report on the International
Conference on radio spectrum conservation
techniques, London, 7-9 July 1980.
Report Number: ONRL-C-11-80

Synopsis: This is a review of the highlights of a
conference reviewing the results of recent
research in developing improved techniques for
reducing the requirements for band width in
communications. Bandwidth-efficient interference
resistant modulation, frequency re-use, cellular
organization of short range transmitters, and
satellite systems are among the techniques
discussed. Areas of interest include mobile
radio, broadcasting telephone systems, satellite
systems, and spectrum planning, assignment and
measurement. (Author)

Status: Dec 31, 1980

Contractor: Office of Naval Research London (England)

Report Classification: Unclassified

- 61 -

15. Title: AD Number: A068512
Unclassified Title: Revised CCITT recommendation
X.25, Level 3 - working draft.
Report Number: NCS-TIB-79-3

Synopsis: This NCS information bulletin provides the current working draft of the basic level 3 of X.25 excluding the fast select and datagram provisions. It represents the work that has been completed through November 1978. Additional revisions will be forthcoming as a result of further special rapporteur meetings in April and Autumn 1979.

Status: Mar , 1979

Contractor: National Communications System, Washington, D.C.

Report Classification: Unclassified

- 62 -

16. Title: AD Number: A068509
Unclassified Title: Transition to the new
generation of data communication interface
standards.
Report Number: NCS-TIB-76-1

Synopsis: This NCS technical information bulletin describes the purpose and interrelationships of an evolving family of new federal standards for interfacing user's data terminal (or data processing) equipment with telecommunication systems. Each of the new standards, including their provision for transition is also described. Additionally, the commonality of features of specific interfaces are identified which will facilitate design of universal data terminal equipment to meet the spectrum of user applications. The path is clearly shown from where we are today to here we want to gracefully evolve. (Author)

Status: Sep , 1976

Contractor: National Communications System, Washington, D.C.

Report Classification: Unclassified

- 63 -

17. Title: AD Number: A157398
Unclassified Title: Commercial and Military
Communication Satellite acquisition practices
Report Number: RAND/R-3121-AF

Synopsis: This study test the contention that the commercial sector consistently manages acquisition programs better than the military, by examining management practices with program outcomes associated with the acquisition of communication satellites by the air force and by the International Telecommunications Satellite Organization (INTELSAT). The study finds that the military and commercial programs are organized and managed in much the same way and that both produce well-functioning, useful spacecraft, several significant differences in management practices and outcomes, however, suggest that the air force may be able to improve its acquisition activities. It concludes that, in carefully selected situations, there should be a place for the performance-oriented INTELSAT management practices. (Author)

Status: May , 1985

Contractor: Rand Corp Santa Monica, Ca.

Report Classification: Unclassified

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I. U.S. Department of State
Bureau of International Communications
& Information Policy

Title: "An Analysis of the Draft EC Green Paper on the
Development of the Common Market for
Telecommunications Services and Equipment"

Synopsis: The paper analyzes the document released by the
Commission of the European Communities containing
its proposals for introducing increased competi-
tion into the European telecommunications
regime. The paper looks at the particular areas
covered by the Green Paper, including network and
terminal equipment, basic and value-added
services, satellites, and broadcasting.

Status: Completed, July 16, 1987

Contractor: In-house paper.

Contact: Office of Planning and Analysis, Bureau of
International Communications & Information
Policy, U.S. Department of State, (202) 653-6102

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J. U.S. Department of Transportation,
Federal Aviation Administration

1. Title: Data Link Studies on Data Link Reliability in
Aeronautical Satellite Channels, Project
Memorandum ODT/TSC FA-736 PM-2-2

Synopsis: Satellite air/ground communications for air
traffic control applications require high
reliability. The reliability of data, however,
depends on the environment in which the aircraft
operates. For the oceanic satellite air/ground
low-rate data links, the International Civil
Aviation Organization/Future Air Navigational
Systems Committee is recommending binary
differential phase shift keying (BDPSK)
modulation. In this memorandum, the expected
performance of BDPSK modulation in aeronautical
satellite channels is reviewed, and the use of
coding to improve system reliability is
discussed. The intent is to bring forth the
available facts and potential problem areas that
may have a bearing on the evolving satellite
air/ground communications architecture design.

Contractor; Transportations Systems Center, U.S. Department
of Transportation, Research and Special Programs
Administration, Cambridge, Massachusetts 02142

Status: Completed September 1987

Cost: Approximately \$20,000

Contact: Mr. Keith D. McDonald, FAA, (202) 267-9842 or
Mr. B. S. Goldstein, TSC, (617) 494-2458

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2. Title: Impact of High Power Broadcasting Frequency Modulation on Avionics

Synopsis: This study provided the Federal Aviation Administration (FAA) and the United States with data on the reaction of aircraft avionics, particularly instrument landing system localizer receivers to high power broadcasting signals from adjacent frequency bands. The results of this study were provided to the International Telecommunication Union (ITU). The ITU is considering the study in the development of the necessary criteria and restrictions to be placed on new broadcasting stations consistent with maintaining safety of flight. The study is both timely and relevant to the European area where the establishment of new FM stations using the band 104-108 MHz is about to commence.

Contractor: U.S. Department of Transportation, Federal Aviation Administration, through the Transportation Systems Center, has contracted Ohio University

Status: Completed May 1987

Cost: Approximately \$170,000

Contact: Mr. Loren Fisher, FAA (202) 267-9713

3. Title: Filtered Quadrature Phase Shift Keying Spectrum Requirements, FAA Report Under Contract DTRS-57-86-C-00004

Synopsis: This point paper addresses the bandwidth required for a Quadrature Phase Shift Keying system that employs reasonable/accepted filtering techniques. Equivalently, this paper provides the means for determining the number of channels that can occupy a given frequency band.

Contractor; The Analytic Sciences Corporation, Reading, Massachusetts 01867

Status: Completed May 1987

Cost: Approximately \$80,000

Contact: Mr. Keith D. McDonald, FAA, (202) 267-9842 or Dr. Michael Guier, TASC, (617) 944-6850 ext. 2737

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U.S. Department of Transportation,
U.S. Coast Guard

List of International Telecommunications Policy Contracts

1. Title: Engineering Services to Support WARC-MOB-87
Synopsis: Support Coast Guard and Department of State in preparing U.S. positions, reviewing foreign proposals, and attending 1987 World Administrative Radio Conference for Mobile Services, in matters relating to HF maritime mobile and maritime distress and safety.
Status: In process; completion date January, 1988.
Cost: \$50,000
Contractor: Walter A. Pappas
Contact: J. Hersey
2. Title: USCG Mobile-87 WARC Support
Synopsis: Prepare supporting justification for maritime mobile use of the 4 and 8 MHz band shared with the fixed services.
Status: Completed September, 1987.
Cost: \$20,000
Contractor: Department of Defense Electromagnetic Compatibility Analysis Center (ECAC)
Contact: LT Ashby (261-1615)
3. Title: Maritime Radar Interference to Aircraft Weather Radat (Project 4S3-7112.5W)
Synopsis: Experimental study to verify whether maritime radars operating at 9310 MHz would interfere with aeronautical radar beacons and radars using the same frequency (issue considered at WARC-MOB-87).
Status: Completed June, 1987.
Cost: \$0 (in-house project)
Contractor: Coast Guard Electronics Engineering Center
Contact: LTJG Blue (FTS 346-7255)

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4. Title: NAVAREA HF Communications Study

Synopsis: Determine probability of reception of international HF marine safety broadcasts in four ocean NAVAREAs.

Status: Completed June, 1987.

Cost: \$21,000.00

Contractor: Department of Commerce, Institute for Telecommunications Sciences

Contact: Jean Adams (FTS 320-5301)

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K. U.S. Information Agency

1. Title: VOA Worldwide Monitoring Analysis

Synopsis: This work examines alternative approaches for implementing a worldwide monitoring system that could be used to determine the quality of the received VOA radio signal in intended audience areas. The areas where development in technology is addressed include microprocessor-controlled receivers, high frequency ionospheric propagation modeling, and analysis of automated techniques for determining signal quality.

Status: On-going work with Department of Commerce (ITS, Boulder, Colorado). To be completed June, 1988.

Contractee: Voice of America, Office of Engineering and Technical Operations, Washington, D.C. 20547

Cost: Approx. \$100,000

Contact: William Whitacre (202) 485-1762

2. Title: European TV Gatekeeper Study

Synopsis: Interviews with 97 executives and managers of European TV cable operations and broadcast stations serve as basis for an in-depth study of factors affecting these "gatekeepers'" decisions to use or not use Worldnet on their broadcast systems. The study considers broadcast operations that carry, do not carry, or have refused to carry Worldnet. The study will focus on the gatekeepers' views of individual segments of Worldnet, time schedule, and quality of program content.

Status: In process. To be completed December, 1987.

Contractee: U.S. Information Agency, Office of Research, 301 4th Street, S.W., Washington, D.C. 20547

Cost: \$45,000

Contact: Sherwood H. Demitz

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3. Title: Worldnet Executive Information System

Synopsis: A functional-requirements study for a proposed system to track key data concerning the telecommunications industry. Information to be within the system are: cable files; country files-a collection of demographic data of telecommunications regulations within each country; key-individual files of biographic information on officials in the telecommunications industry worldwide; product files-a repository for all information on products that are available to the U.S. Information Agency; and production files, research files and data files on all areas of published works on world-wide telecommunications.

Status: May, 1987

Contractee: U.S. Information Agency, Television and Film Service, Division of Program Services, Washington, D.C. 20547

Cost: \$22,552.56

Contact: Jay Garfinkel (202) 376-7210

4. Title: Regulations in Western European Countries that would Allow or Restrict Sponsorship and/or Advertising on Worldnet

Synopsis: This study was conducted to assess the regulatory climate for Worldnet to broadcast programs having a sponsored message or advertisement within the program schedule. Financing the acquisition of programs through sponsorship and/or advertising could save the U.S. Information Agency money and pay for broadcasts of the best of American cultural films, concerts and documentary series.

Status: August, 1987

Contractee: U.S. Information Agency, Television and Film Service, Division of Program Services, Washington, D.C. 20547

Cost: \$4,653.00

Contact: Jay Garfinkel (202) 376-7210

- 71 -

5. Title: Analysis of Overall Automation of the Television & Film Service and TV's News Division

Synopsis: 1. The study analyzes systems that will permit TV's News Division to identify and access information needed for programming for daily satellite transmission to Europe and Latin America. System sought will also provide identification and retrieval of stock footage information, schedule personnel and facilities, develop scripts, feed scripts to the studio for teleprompter use, and interface with Sony Betacart system. 2. The study examines approaches to the overall automation of the Television and Film Service.

Status: To be completed November, 1987.

Contractee: U.S. Information Agency, Television and Film Service, Office of Facilities, Washington, D.C. 20547

Cost: \$34,700.92

Contact: Richard Caldwell (202) 376-7778

6. Title: Long-range Planning Study for the Transmission of Worldnet to World-wide Audiences

Synopsis: To develop a long-range plan to expand and improve the existing Worldnet system through the use of future global, regional and local distribution systems, including international satellite and fiber-optic cable systems. The plan will address technology, policy, and funding issues as well as two-way video systems.

Status: Proposed; to be completed February, 1988

Contractee: U.S. Information Agency, Television and Film Service, Office of Facilities, Washington, D.C. 20547

Cost: To be determined

Contact: Robert Rostron (202) 376-7213

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L. U.S. International Trade Commission

Title: U.S. Global Competitiveness: Optical Fibers, Technology and Equipment: Report to the Committee on Finance, U.S. Senate, Investigation No. 332-233, Under Section 332(g) of the Tariff Act of 1930

Synopsis: Analyzes and addresses: 1) measures of the current competitiveness of the U.S. optical fiber industry in domestic and foreign markets; 2) comparative strengths of U.S. and major foreign competitors; 3) the nature of the major competitive problems facing the U.S. industry; 4) the sources of these problems, including the extent to which they arise from special transitory or reversible situations or are the result of more fundamental or structural problems; and 5) the importance of U.S. and foreign markets to the future competitiveness of U.S. and foreign producers in terms of economies of scales, growth rates, and pre-empting or market advantages.

Status: December 24, 1987

Contact: Chris Johnson (202) 724-1730.

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M. Office of the United States Trade Representative

Title: Response of the Government of the United States of America to the European Community Green Paper on the Development of the Common Market for Telecommunications Services and Equipment

Synopsis: This U.S. Government inter-agency document represents the official U.S. Government comments on the document released by the Commission of the European Communities containing its proposals for introducing increased competition into the European telecommunications regime.

Author: U.S. Government Inter-agency Document

Status: Submitted to the Commission of the European Communities, December, 1987.

Contact: David Weiss, Office of European and Mediterranean Affairs, Office of the U.S. Trade Representative, (202) 395-3074

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IV. BUREAU OF INTERNATIONAL COMMUNICATIONS AND INFORMATION
POLICY


Corrections, additions, and deletions to this survey and
requests for copies should be sent to:

Timothy C. Finton
Office of Planning and Analysis
Bureau of International Communications
and Information Policy, Room 6317
U.S. Department of State
Washington, D.C. 20520

(202) 653-6102


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14	D/PAO				
15	D/PERS				
16	D/Ex Staff				
17	C/MPSS/DI		X		
18	D/OGI		X (Lisa Vawter)		
19	D/Commo/DA		X		
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Remarks

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 Executive Secretary

17 Dec 87

Date

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United States Department of State

*Bureau of
International Communications
and Information Policy*

Washington, D.C. 20520

December 10, 1987

Dear Chairman Patrick:

Thank you for your letter regarding an arrangement between the United States and the United Kingdom which would allow U.S. firms to take full advantage of the increasingly open telecommunications environment in the U.K. At the outset, I want to assure you that the Department of State has and will continue to elicit the views of the Federal Communications Commission in this matter even though the contemplated arrangement does not entail binding international obligations which could restrict the scope of regulatory discretion available to the FCC under the Communications Act of 1934.

Periodic bilateral communications and information policy discussions with the U.K. were initiated over five years ago. The Department of State has always invited the FCC to contribute and participate in the discussions which have been held every year and a half since their inception. Starting with our initial session we have focused attention on promoting bilateral interests in liberalization as well as building on our mutuality of interests in ITU, INTELSAT and INMARSAT. The FCC has made important contributions to this process especially in regard to explaining our own domestic regulatory activities which have been very helpful to the UK's own internal deliberations.

During the November 1986 bilaterals, to which the FCC did not send a representative, the British government identified the then-contemplated regulatory changes which would allow for increasingly liberalized use of international private leased circuits. In order to take full advantage of this incremental change as contemplated in the U.K.'s regulations which are presently in effect, an international arrangement between the U.K. and another country would be necessary.

The Honorable
Dennis Patrick, Chairman,
Federal Communications Commission,
1919 M Street, N.W.,
Washington, D.C.



C-204-15

- 2 -

The provisions of Sec 4.2 of the U.K.'s Draft Class License for Value Added and Data Network Services already makes clear that international private line circuits may be used for Value Added Services absent the arrangement we presently contemplate. This arrangement would, pursuant to 4.2 (iii)(b) allow the use of international private circuits to be used to provide other than value-added services. Accordingly, we view the proposed arrangement as a key element of introducing liberalization internationally which goes beyond those other uses already specifically contemplated by the license.

Immediately following the bilaterals and on an ongoing basis, the Department has consulted closely with the FCC, NTIA and other interested agencies in developing an appropriate framework to implement this initiative which is compatible with the stated policy goals of the U.S. as well as U.K. As I previously indicated to you and Assistant Secretary Sikes, there are a number of advantages to the U.S. to be derived from an arrangement:

- It will directly benefit U.S. companies operating in the U.K.
- It will further encourage the U.K.'s step-by-step liberalization by assisting the government to overcome temporary domestic policy roadblocks.
- It will demonstrate to other countries the U.S. interest in working to achieve liberalization of telecommunications services internationally which will inevitably come in stages.
- It reinforces an important dimension of the U.S. approach to the upcoming WATTC in demonstrating our willingness to deal with individual countries to our mutual advantage.

Moreover, we are convinced that it offers us an unusual opportunity to take advantage of liberalizing interests in another country without prejudging future changes or arrangements which we might optimally desire.

As your letter notes, we have shared draft texts of an arrangement with the government of the U.K. The proposed arrangement is compatible with current FCC domestic regulations, having benefitted from numerous interagency meetings in which members of your staff played an active and continuous role. Indeed, while an excellent case can be made to the contrary, references to Article 31 of the ITU Convention were deleted from the draft text in our attempt to accommodate a concern you had raised with your staff.

- 3 -

Since your letter references this concern, and final language has not been agreed upon, it seems worthwhile to revisit this issue and clarify what appears from your letter to be a misunderstanding as to the import of referencing Article 31 of the ITU Convention. I certainly agree that we want to promote internationally as well as domestically the offering of services on as unregulated a basis as possible. Indeed, it is towards this very end that we wish to highlight the flexibility provided by the ITU Convention and associated regulations. However, your letter states: "that enhanced services should be offered on an unregulated basis and that the provisions of the ITU Convention should not be extended to the offering of these unregulated services." The ITU Convention does not distinguish obligations of ITU Members based on whether a service is "basic" or "enhanced" (this is U.S. domestic terminology) or "basic" and "value-added" (the terms employed by most of the rest of the world). Specifically, the obligations contained in Article 44 of the ITU Convention relate, in part, to private operating agencies "which engage in international services", not only to those which engage in international basic services. This factor was highlighted in my letter to Chairman Fowler of May 30, 1985 relating to CC Docket 83-1230.

In the broader context, we have successfully pursued a policy course in ITU related matters taking advantage of and reinforcing the liberalizing mechanisms available in the ITU. It is not unlike "driving sheep over London Bridge" to keep the rights as well as obligations in view. Further, since our interests go beyond the U.K., our efforts at liberalization elsewhere could be severely and needlessly handicapped if our proposed bilateral arrangement is perceived as requiring countries to break from their international obligations to the ITU.

A U.S.-U.K. arrangement, as presently envisioned, is already contemplated by Articles 4 of the existing Telegraph and Telephone Regulations and Article 31 of the ITU Convention. We need make no apologies for this. On the contrary, by highlighting the ITU's inherent support of bilateral arrangements, we pre-empt those countries who wish to interpret ITU "recommendations" as "requirements" and avoid the unnecessary perception that our action undermines the ITU.

In a related matter, this approach will also strengthen our hand in dealing with the differing national views on the upcoming WATTC. We have criticized the draft telecommunications regulations produced by PC/WATTC as entailing obligations beyond the regulatory scope of the present ITU Convention. I am concerned that any perceived

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inconsistency regarding our adherence to our current ITU obligations will diminish the force of our arguments against the "any entity" language of the PC/WATTC draft.

I obviously do not believe it is a deal-breaker whether the U.S.-U.K. arrangement references our countries' mutual ITU obligations in the text of the principles evidencing the arrangement rather than in an accompanying covering letter, but I do believe it is important for the FCC to recognize that this interest on our part is intended to help set the scene for expanding rather than limiting our mutual interest in minimalist regulation here and abroad.

I concur that it is in the interests of the U.S. to encourage the U.K., and indeed, all other countries, to allow for the possibility of multiple providers of international facilities. Accordingly, our draft language provides for a periodic review of the development and use of international private leased circuits to ensure the continued advancement of the public interests of the U.K. and the U.S. This provision will allow us an open forum to demonstrate, with FCC participation and advice, the benefits of competition in the provision of international facilities at precisely the time the British government focuses on these issues domestically. Indeed it may encourage the U.K. to consider this sooner rather than later. I concur also that we should make clear that conclusion of the contemplated arrangement is but a first step toward establishing greater opportunities for U.S. firms to offer value-added and data services in the U.K. on the same basis that British enhanced service providers offer service in the U.S. However, the appropriate place to make this point is in our covering letter rather than in the statement of principles. We must, as in other areas of foreign policy, promote and build upon positive initiatives rather than pursue a counterproductive course of holding a mutually beneficial arrangement as a bargaining tool for other concerns.

Since receiving your letter further interagency and industry meetings have been held and several points raised by FCC staff. Private sector interests representing more than 250 of this nation's community of users and service producers, reiterated their keen interest in the initiative as having direct benefits to U.S. interests. Indeed the only serious concerns raised was over delay in implementing the proposed arrangement.

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In our continuing work with representatives of the U.K. government to finalize an appropriate arrangement we will, as in the past, seek the advice and counsel of the FCC. I appreciate your personal interest in this matter and look forward to your help in avoiding further delays.

Sincerely,



Diana Lady Dougan
U.S. Coordinator and Director

cc: Commissioner Quello
Commissioner Dennis
Charles Cobb
Lt. Gen. John Myers
Dr. Thomas P. Quinn
Alfred Sikes
S. Bruce Smart

oni - ~~1st draft~~
~~for ref~~

For tomorrow, we
can probably send this
only to OGI.

Pls key a reference
on telecommunications
policy to get me
previous material which
will show the OGI
officer involved.

HLS

Central Intelligence Agency



Washington, D.C. 20505

DDI- 043 244/87

13 October 1987

Mr. Timothy C. Finton
Office of Planning and Analysis
Department of State
Washington, D.C. 20520

Dear Mr. Finton:

25X1 Ambassador Dougan's letter of September 14, 1987 to Judge Webster regarding studies in the telecommunications policy area has been referred to me for response. I am happy to assist you again this year in your endeavor to coordinate foreign affairs research projects on this topic.

25X1 I have surveyed our offices' involvement in research related to international telecommunications and have located only one study in this field undertaken in 1987. Although the study itself is unclassified, it is part of a larger classified project. For this reason, I ask that it not be listed in an unclassified document. The study is:

DCI
EXEC
REG

CONFIDENTIAL

C-204-1r

Mr. Timothy C. Finton

25X1 This study was done in conjunction with contracts that included other consulting work. I have, therefore, omitted the contract cost information that you requested. [redacted]

25X1 I will be pleased to assist you further in developing your
25X1 resource base and to have an officer participate in any ongoing
25X1 discussions to further improve inter-agency coordination and
exchange of research. I have asked [redacted] of this
Staff [redacted] to serve as our representative. [redacted]

Sincerely,

25X1 [redacted]

Chief, Management, Planning and Services Staff

25X1 CONFIDENTIAL [redacted]

Mr. Timothy C. Finton

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SUSPENSE		Date			

Remarks

Please provide ES the name of Agency participant (last paragraph) for future reference.

STAT

Executive Secretary

28 Sept '87

Date

3637 (10-81)

87-3306X



United States Department of State

*Bureau of
International Communications
and Information Policy*

Washington, D.C. 20520

SEP 14 1987

Bill
Dear Mr. Webster:

For the past two years, you have participated with us in helping to develop a compilation of a listing of all U.S. Government contracts for studies which have relevance to international telecommunications policy matters. This effort has shown us that as we are working in the U.S. Government to develop a telecommunications resource base, sharing the research can ensure optimal use in the policy-making process. With the continued emphasis by the Administration on fiscal efficiency, it is all the more important that we continue our efforts again this year to share and coordinate our research efforts.

Therefore, I would like to enlist your personal support in again encouraging your office or agency to provide appropriate information on studies it has undertaken for the year 1987. The submission should include the following information: 1) title of the study, 2) short synopsis, 3) contractee, 4) status - whether proposed, in process, or completed, 5) date of completion (actual or proposed), 6) cost, and 7) contact person for obtaining copies and/or further information.

We would welcome any suggestion on improvements or refinements of this process. In this regard, we also would appreciate your designating an officer in your agency who could participate in some on-going discussions to further improve inter-agency coordination and exchange of research and study efforts.

Honorable William Webster
Director
Central Intelligence Agency
Washington, D.C.

DCI
EXEC
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C-204-1R

- 2 -

Send responses by October 15, 1987 to Timothy C. Finton, Office of Planning and Analysis, Room 6317. Mr. Finton can be reached at 653-6102. As in the past, we will, in turn, share this compendium with all the contributing agencies. In the instances of classified reports, we will treat accordingly.

Thank you for your help.

Sincerely,

A handwritten signature in dark ink, appearing to read "Diana", with a long, sweeping horizontal stroke extending to the right.

Diana Lady Dougan
U.S. Coordinator and Director

ROUTING SLIP

TO:

		ACTION	INFO	DATE	INITIAL
1	DCI		3 X(w/o att.)		
2	DDCI		4 X(w/o att.)		
3	EXDIR				
4	D/ICS				
5	DDI		1 X(w/att)		
6	DDA		5 X(w/o att.)		
7	DDO				
8	DDS&T				
9	Chm/NIC				
10	GC				
11	IG				
12	Compt				
13	D/OLL				
14	D/PAO				
15	VC/NIC				
16	C/MPSS/DDI		6 X (W/o Atch)		
17	ER		2 X		
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SUSPENSE		Date			

Remarks

STAT

Executive Secretary

18 NOV 86

Date

3637 (10-81)

88-3369x/1



United States Department of State

*Bureau of
International Communications
and Information Policy*

Washington, D.C. 20520

November 7, 1986

Dear Bill:

As government research dollars decrease, the importance to coordination and information sharing among government agencies becomes even more critical. Thus, I hope you will find useful this 1986 survey of U.S. agency contracts and in-house studies for the telecommunications sector.

We appreciate the speedy replies by all agencies in furnishing us with the requested information. As is evident from this compilation, the amount of work being done by U.S. Government agencies in the telecommunications sector is impressive. This work covers the broad spectrum of telecommunications from broadcast to ISDN and from international trade to transborder data flows. The dissemination of this compilation to all U.S. Government agencies will prove beneficial for helping policy formulation.

We welcome suggestions from your staff on how we can continue to improve this ongoing process of coordination and development. Our Office of Planning and Analysis will, in the meantime, be contacting your agency for periodic updates for distribution.

Sincerely,

A handwritten signature in cursive script, appearing to read "Diana".

Diana Lady Dougan
U.S. Coordinator and Director

The Honorable William V. Casey,
Director,
Central Intelligence Agency,
Washington, D.C.



C-204-15

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CONFIDENTIAL

ER

Central Intelligence Agency



Washington, D.C. 20505

8 August 1986

Mr. Timothy C. Finton
Office of Planning and Analysis
Room 6317
Department of State
Washington, D.C. 20520

Dear Mr. Finton:

Ambassador Dougan's letter of July 9, 1986 to Mr. Casey regarding studies in the telecommunications policy area has been referred to me for response. I can appreciate the Department's concerns regarding efforts to share and coordinate research efforts. In the current operating environment of fiscal constraints, I can assure you this Agency supports your efforts and, in fact, routinely coordinates our foreign affairs research projects with the Department of State.

I have surveyed our offices doing research related to international telecommunications policy and have located three studies in this area initiated during 1985 or 1986. These studies are unclassified, but because we wish to protect the CIA association with them, we ask that they not be listed in an unclassified document. The three studies are:

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SUBJECT: Mr. Timothy C. Finton

All three studies were done in conjunction with larger contracts that included other consulting work. We have, therefore, omitted the contract cost information that you requested.

I hope this listing is of help in your development of a resource base on telecommunications policy. If you need further information, please contact

CIA External Research Coordinator

Sincerely,

Chief, Management, Planning and Services Staff

-2-

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25X1

CONFIDENTIAL

SUBJECT: Mr. Timothy C. Finton

Distribution:

Orig - Addressee

- 1 - DCI
- 1 - DDCI
- 1 - DDA
- 1 - DDI
- 1 - C/MPSS
- 1 - C/MPSS/RPMC
- 1 - C/MPSS/RPMC/Plans
- 1 - CIA/External Research Coordinator
- 1 - ODI/MPSS/RPMC/Chrono

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ODDI/MPSS/RPMC (01 Aug 86)

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ROUTING SLIP

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SUSPENSE		8 Aug 86 Date			

Remarks To 5: Please respond direct, info to DCI.

STAT

Executive Secretary
23 Jul 86

Date

3637 (10-81)



United States Department of State

Bureau of
International Communications
and Information Policy

Washington, D.C. 20520

July 9, 1986

Executive Registry

85- 3369X

Bill
Dear Mr. Casey:

As a leading participant in the telecommunications community you know how important it is to keep pace with technological development. It is crucial for us to establish a more cohesive resource base of research in order to integrate this information into policy-making. From satellites to fiber optics and from data processing to switching technology, these are areas that are at the forefront of telecommunications technology. As we are working to develop that resource base, sharing the research can ensure optimal use in the policy-making process.

Last year we initiated the compilation of a listing of all U.S. Government contracts for studies in the telecommunications policy area. With the continued emphasis by the Administration on fiscal efficiency, it is all the more important that we collectively increase our efforts to share and coordinate our research efforts.

Therefore, I would like to enlist your personal support in again encouraging your agency to provide appropriate information on studies it has undertaken for the years 1985 and 1986. The submission should include the following information: 1) title of the study, 2) short synopsis, 3) contractee, 4) status - whether proposed, in process, or completed, 5) date of completion (actual or proposed), 6) cost, and 7) contact person for obtaining copies and/or further information.

Mr. William V. Casey, Director,
Central Intelligence Agency,
Washington, D.C.

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REG

C-204-IR

- 2 -

We would appreciate responses by August 8, 1986 to Timothy C. Finton, Office of Planning and Analysis, Room 6317. Mr. Finton can be reached at 647-6235. We will in turn share this compendium with all the contributing agencies. In the instances of classified reports we will treat accordingly.

Thank you for your help.

Sincerely,

A handwritten signature in cursive script, appearing to read "Diana", followed by a horizontal flourish.

Diana Lady Dougan
U.S. Coordinator and Director